

**IN THE SPECIFICATION:**

Page 1, please insert the following as the first paragraph:

This application is a U.S. National Phase Application  
under 35 USC 371 of International Application  
PCT/JP2004/017392 filed November 24, 2004.

Pages 6-7, please replace paragraph [0011] as follows:

[0011]

~~In order to achieve the above object, the invention of~~  
~~Claim 1 is~~ According to a first aspect of the invention a  
manufacturing method of for manufacturing an absorbent body is  
provided, wherein: a stripe-shaped absorbent body base,  
including an absorbent element obtained by mixing at least  
pulp with super absorbent polymer, is sent and transferred  
through a pair of rollers that are provided to be opposed to  
each other with a predetermined distance, wherein at least one  
of the rollers is a press print processing roller that has a  
plurality of processing projections with a predetermined  
layout on a circumference surface; and a plurality of linear  
pattern elements are formed on at least one surface of the  
absorbent body base, wherein the linear pattern elements are  
formed by being squeezed by the processing projections so as  
to have a groove-like shape when seen from the top, and the  
plurality of linear pattern elements are individually spaced  
from one another and dispersed in a staggered manner.

Page 7, please replace paragraph [0012] as follows:

[0012]

~~The invention of Claim 2 is the manufacturing method of an absorbent body according to Claim 1, wherein~~ According to a second aspect of the invention, the linear pattern elements are arranged so that number of the linear pattern elements on any of straight line that extend in a width direction orthogonal to a transfer direction of the absorbent body base is equal, and so that the linear pattern elements have a fixed distance thereamong in the width direction.

Pages 7-8, please replace paragraph [0013] as follows:

[0013]

~~The invention of Claim 3 is the manufacturing method of an absorbent body according to Claim 1 or 2, wherein~~ According to a third aspect of the invention, the linear pattern elements are formed in a linear shape so that an orientation angle, which is a degree of inclination of the linear pattern elements to the transfer direction of the absorbent body base, is 50 degrees or less at any portion.

Page 8, please replace paragraph [0014] as follows:

[0014]

~~The invention of Claim 4 is an absorbent body for disposable diaper manufactured by the manufacturing method of an absorbent body according to any one of Claims 1 to 3, wherein~~ According to a fourth aspect of the invention: the absorbent element is filled into a storage bag obtained by sealing edge parts of a liquid-permeable sheet of the absorbent body base provided with the linear pattern elements; the plurality of linear pattern elements having a linear groove shape when being seen from the top are arranged to have spaces thereamong in a dispersed and staggered manner while the absorbent element is squeezed until its absorption performance almost disappears; and an area in the absorbent body base in which the linear pattern elements are not formed have a predetermined thickness.

Pages 8-9, please replace paragraph [0015] as follows:

[0015]

~~The invention of Claim 5 is the absorbent body for disposable diaper according to Claim 4, wherein~~ According to a fifth aspect of the invention, the absorbent body base used for disposable diaper has an inner surface that is adhered with a liquid diffusion sheet and the plurality of linear pattern elements are formed concavely, together with the liquid diffusion sheet, in the inner surface of the absorbent body base.

Page 9, please replace paragraph [0016] as follows:

[0016]

~~The invention of Claim 6 is the absorbent body for disposable diaper according to Claim 4 or 5, wherein~~  
According to a sixth aspect of the invention, the plurality of linear pattern elements are formed concavely on both faces of the absorbent body base so as to be opposed to one another with the same layout.

Pages 9-10, please replace paragraph [0017] as follows:

[0017]

The invention according to ~~Claim 1~~ the first aspect arranges, in a staggered and dispersed manner, linear pattern elements having a linear groove-like shape when being seen from the top. Thus, these linear pattern elements occupy a very small proportion of the entire surface area of the absorbent body base. Thus, a major area of the absorbent element except for the area in which the linear pattern elements are formed has a thickness that is slightly reduced to a predetermined thickness and the absorbent element is prevented from being crushed, thus an intended absorption performance is secured. Thus, the entire absorbent element has an absorption capability that is not so much deteriorated. Therefore, the absorbent body formed in this manner has a strength which enables, by the

strongly-squeezed linear pattern elements, an area in the absorbent body base having no linear pattern elements to be prevented from returning into a thickness before the squeezing process and simultaneously allows the absorbent element in the major area of the absorbent body base having no linear pattern elements to securely maintain an intended absorption performance. Thus, a resulting disposable diaper can have a sufficient absorption performance while having a required strength. Specifically, a conventional process to provide an absorbent body by squeezing entirely or substantially entirely an absorbent body base, can squeeze the absorbent body base only with a relatively small linear pressure. In contrast to this, this absorbent body can provide a required absorption performance by the major area of the absorbent body base having no linear pattern elements. Thus, no problem is caused even when the linear pattern elements are strongly squeezed until the absorption performance almost disappears.

Pages 10-11, please replace paragraph [0018] as follows:

[0018]

The invention according to ~~Claim 2~~ the second aspect can always retain a fixed linear pressure applied from the press print processing roller to the stripe-shaped absorbent body base in the width direction and can arrange the respective linear pattern elements in a discontinuous and

dispersed manner so as to have a distance thereamong. Thus, a relatively-high linear pressure can be uniformly applied to the respective processing projections of the press print processing roller in a dispersed manner. As a result, the press print processing roller is prevented from having vibration due to the change in the pressure. Thus, the press print processing roller can be always driven and rotated in a stable manner.

Pages 11-12, please replace paragraph [0019] as follows:

[0019]

Even when the absorbent body base is squeezed by a relatively-high linear pressure applied from the press print processing roller, the invention according to ~~Claim 3~~ the third aspect prevents increase in resistance force that is caused when the absorbent body base is sent after the absorbent body base 1 is squeezed by the processing projection. On the other hand, when the orientation angle  $\theta$  is 50 degrees or more, the absorbent body base 1 may have a high resistance force when the linear pattern elements are separated from the processing projection, which may cause a scratch at the edge part of the formed linear pattern elements. The above resistance that is prevented from being increased also prevents a difficulty in that the formed linear pattern elements adheres to the processing projection to an extent that it cannot be easily peeled off from the processing projection. This eliminates an inconvenience where the absorbent

body base sent through the pair of rollers is wound around, thus allowing the absorbent body base to be smoothly transferred. Thus, the linear pattern elements can be formed by smoothly transferring the absorbent body base.

Page 12, please replace paragraph [0020] as follows:

[0020]

The invention according to ~~Claim 4~~ the fourth aspect allows a major area of the absorbent body base to have no linear pattern elements. Thus, super absorbent polymer in this area having no linear pattern elements holds an intended absorption performance to efficiently absorb liquid and significant swelling. During this time, the plurality of linear pattern elements arranged in a uniform and staggered manner provide high strength, by which the resultant disposable diaper is securely prevented from losing or having biased shape. Furthermore, the respective two neighboring linear patterns provide a function as a dispersion path through which absorbed urine or stool having high flowability is dispersed. This allows the urine or stool to be guided by the linear pattern elements so that the urine or stool is appropriately dispersed in the absorbent body in longitudinal and lateral directions, thereby being uniformly absorbed by the entire absorbent body.

Pages 12-13, please replace paragraph [0021] as follows:

[0021]

The invention according to ~~Claim 5~~ the fifth aspect allows the liquid diffusion sheet covering the inner surface of the absorbent body base to provide a capillary phenomenon through which urine is dispersed over the entire surface. As a result, a situation is prevented where only the super absorbent polymer at a particular part of the absorbent body to have an excessive amount of urine and excessively swell.

The invention according to ~~Claim 6~~ the sixth aspect can provide a further higher strength by the respective pairs of linear pattern elements that are formed in both surfaces of the absorbent body base so as to be opposed to one another.

Pages 32-33, please replace paragraph [0047] as follows:

[0047]

Therefore, this manufacturing method can provide an absorbent body integrated with the liquid diffusion sheet 22 with high productivity while obtaining the same effect as that of the first embodiment. Furthermore, when the absorbent body obtained by this manufacturing method is used in a disposable diaper, the absorbent body provides the same effect as that obtained by the absorbent body 4 of the first embodiment ~~provides the same effect as that obtained by the absorbent body 4 of the first embodiment~~. In addition, the liquid diffusion sheet 22 covering the inner surface of the



absorbent body base 1 provides a capillary phenomenon to diffuse urine over the entire surface, thus preventing a situation in that the super absorbent polymer 9 (FIG. 3B) at in the particular portion of the absorbent body to have an excessive amount of urine and excessively swell.